

Financial Assistance Award

DENALI COMMISSION
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Anchorage, Alaska 99501
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www.denali.gov

Award Number

01285-00

Award Title

Alaska Center for Energy and Power -
Wind Assessment

Performance Period

May 1, 2010 through June 30, 2011

Recipient Organization & Address

UNIVERSITY OF ALASKA FAIRBANKS
Alaska Center for Energy and Power
PO BOX 757880
Fairbanks, AK 99775-7880

Authority
112 Stat 1854

CFDA Number
90.100

Denali Commission Finance Officer Certification

Ms. Jennifer Price
08/12/2010

Phone: (907) 474-6264**Recipient DUNS #** 615245164 **TIN #** 926000147

Cost Share Distribution Table

Accounting Code	New Funding		Prior Period Funding		Total
	Denali Commission	Other Contributors	Denali Commission	Other Contributors	
95670000	\$75,000.00		\$0.00		\$75,000.00
	\$0.00		\$0.00		\$0.00
	\$0.00		\$0.00		\$0.00
	\$0.00		\$0.00		\$0.00
	\$0.00		\$0.00		\$0.00
		\$0.00		\$0.00	\$0.00
		\$0.00		\$0.00	\$0.00
		\$0.00		\$0.00	\$0.00
		\$0.00		\$0.00	\$0.00
		\$0.00		\$0.00	\$0.00
Total	\$75,000.00	\$0.00	\$0.00	\$0.00	\$75,000.00

This Financial Assistance Award approved by the Federal Co-Chair of the Denali Commission constitutes an obligation of federal funding.

Award Conditions to the Financial Assistance Award between the Denali Commission and University of Alaska Fairbanks, Alaska Center for Energy and Power for Wind Assessment, Award 01285

Continued on the following pages.

Signature of Authorized Official - Denali Commission

Electronically Signed

Typed Name and Title

Mr. Joel Neimeyer
Federal Co-Chair

Date _____

08/11/2010

AWARD ATTACHMENTS

UNIVERSITY OF ALASKA FAIRBANKS

01285-00

1. Award Conditions - Alaska Center for Energy and Power - Wind Assessment

***Award Conditions to the Financial Assistance Award
Between the Denali Commission and University of Alaska Fairbanks, Alaska
Center for Energy and Power
For Wind Assessment
Award No. 01285
July 2010***

1. Scope of Work

Alaska's coastal communities are known for having a tremendous wind regime which, due to their remote location, coincides with high energy costs. To reduce diesel consumption and ultimately the cost of electricity, utilities such as Alaska Village Electric Cooperative and Kotzebue Electric Association have installed wind turbines to displace fossil fuels. As a whole, the market for wind-diesel power systems in Alaska has expanded dramatically in recent years, with 11 currently installed systems and at least 25 additional projects in construction or under development. Several of these projects are partially funded through the Denali Commission (Commission) or the Alaska Energy Authority. In total, there are over 250 wind turbine years of experience in Alaska, yet the true benefit of these systems has not clearly been quantified. This project will analyze the engineering and economic performance of existing systems, establish realistic performance parameters in Alaska conditions, and identify potential mechanisms to optimize current and soon to be developed systems.

Publicly available Power Cost Equalization (PCE) data shows that many of the installed wind systems in rural Alaska are not providing the expected level of fuel savings. There exists a need for an unbiased, third party assessment of existing systems with the goal of establishing a baseline, and determining how to best optimize existing and future systems. This study will include both technical analysis (how small wind turbines interact with diesel generators in real world isolated systems) and an economic analysis of existing wind-diesel systems. Numerous considerations must be made when assessing the costs and benefits of wind projects in Alaska, including the impact of lost recovered heat, life cycle operations and maintenance costs, and diesel efficiency declines due to load reduction when the wind is blowing. At this time, there is no set standardization for such factors, and there are complexities involved in pinpointing and properly analyzing each system due to the unique circumstances of every installation. Nonetheless, publicly available PCE data indicates that many of the installed wind systems in rural Alaska are not providing the expected level of fuel savings. Using data obtained from PCE reports and collected directly from existing wind-diesel installations, performance data will be modeled using a proposed set of wind-diesel standards, thereby quantifying the economical and technical benefits of existing wind-diesel systems. In addition, this study will make recommendations on how such systems can be improved to provide optimum public benefit.

Project Team

This project is a joint Alaska Center for Energy and Power (ACEP)/Institute for Social and Economic Research (ISER) study. Gwen Holdmann (ACEP) and Ginny Fay (ISER) will serve as co-PIs. Changes to the project team shall be reported to the Commission as soon as possible.

Timeline, Budget and Deliverables

This project will be completed within 6 months from the official start date and will include a final report, operational and cost parameters for Alaska wind systems, identify data gaps, and suggestions for data to be reported for wind project grant recipients.

The proposed budget is \$75,000 and is inclusive of indirect costs to complete the report. Two round trips for ISER and ACEP between Anchorage and Fairbanks are budgeted. Included in the budget are the costs for the writing and printing of a four-page research summary to facilitate sharing the information throughout Alaska. Long-distance phone will be needed to contact informants outside of the local calling area. Duplication expenses are anticipated for internal project documents.

All Commission funding is intended for use for the scope of work identified in the Award document only. Any balance of funds remaining after the full scope of work has been completed will be returned to the Denali Commission.

2. Milestones

The following milestones are identified as the major steps to be completed as part of the project. "Planned" dates for the first milestone are included here. As part of each progress report, recipients shall update the progress toward meeting these milestones (see section 7, Reporting).

Milestone	Planned		Actual		Units	Total Cost At Completion
	Start Date	End Date	Start Date	End Date		
In-Progress	05/01/2010	06/30/2011			0	\$0.00
Project Close-out	07/01/2011	09/30/2011			0	\$0.00

3. Award Performance Period

The Award performance period is May 1, 2010 through June 30, 2011. This is the period during which Award recipients can incur obligations or costs against this Award.

4. Direct and Indirect Costs

The cost principles of OMB A-21 are applicable to this Award. Direct costs for this award total \$53,915 of which \$24,812 is ACEP direct and \$29,103 is ISER direct. These

amounts are used to adhere to the federally negotiated indirect rate for each entity. ACEP indirect is 45.1% (up to \$11,190). ISER indirect is 34% (up to \$9,895). The total amount of \$75,000 is inclusive of all direct and indirect costs for this project.

F&A (overhead) Explanation for Cost of Wind Assessment

F&A is used to cover support staff as well as maintenance and upkeep of existing equipment, facilities, and labs that will be used for this project. This rate has been previously negotiated with the federal government and is applied to all UAF federal research contracts. Specific items that are relevant to this project are listed below. These represent resources currently owned by the University and will be used to support this project. They are not explicitly included in the project budget as individual line items, but are supported under F&A. For this project, these include:

1. Existing computer equipment, phone, fax, and office supplies that will be used to support this research project, but not charged directly to the project.
2. Support for business office staff as well contracts and proposals offices at UAA and UAF that assist the research and perform critical functions related to this project.
3. Educational development for student interns working on the project.
4. Database hardware and software licensing costs for storage and analysis of project data that are not charged directly.
5. Office space for the research team, including all ACEP and ISER participants.
6. Utilities for office space.

Refer to the cost principles regulations for specific details on other allowable charges under this Award.

5. *Budget and Program Revisions*

The Administrative Circular, 2 CFR Part 215, applies to this Award. Please refer to the Administrative Circular for specific details on revisions to this Award. The Administrative Circular requires that ACEP will inform the Commission in writing (e-mail, letter, or report) at the earliest possible date of any unanticipated project cost overrun, project schedule delays, or changes in the project scope or changed site conditions.

6. *Payments*

Payments under this Award will be made by electronic transfer in response to a "Request for Advance or Reimbursement", Standard Form 270 (SF-270) submitted by ACEP. Requests for reimbursements may be made as needed. The SF-270 must be submitted to the Denali Commission via fax, e-mail (finance@denali.gov) or mail in order for payment to be processed. The form is available on the OMB website: http://www.whitehouse.gov/OMB/grants/grants_forms.html. Payments shall be made in

accordance with 2 CFR Part 215. Please contact the Denali Commission's Finance Specialist at (907) 271-1414 for further information about submitting this form. **No interest will be accrued on these funds.**

7. Reporting

Two forms of project reporting are required under this Award, listed below. ACEP shall submit reports using the Denali Commission's on-line Project Database System, available at www.denali.gov. If there are technical limitations which may prevent the recipient from meeting this requirement, please contact the Program Manager listed in this agreement.

- a. **Progress Reports** shall be submitted on a quarterly basis. The first reporting period is May 1, 2010 to September 30, 2010, and quarterly thereafter. Reports are due within 30 days of the end of the reporting period. Progress reports shall include the following:
 - i. Total project funding, including both Denali Commission funding and other project funding sources.
 - ii. The total project expenditures for the project as of the end of the reporting period, including both Denali Commission and Other funding sources.
 - iii. Updated schedule and milestone information as identified in the Scope of Work
 - iv. Narrative summary of the project status and accomplishments to date, and address the following questions: is the project on schedule, is the project on budget, and what actions are planned to address any project problems.
 - v. For minor repair and renovation projects or other non-construction projects, pictures should be provided of before and after, or photos that are representative of the funded activity, to the extent possible. Photos shall be provided in a digital format as part of the on-line report. A short description of the activity and names of those in the photos shall also be provided.
- b. **Federal Single Audits** shall be submitted annually, when required. In accordance with OMB Circular A-133, which requires [subpart 200] "Non-Federal entities that expend \$500,000 or more in a year in Federal awards shall have a single or program-specific audit conducted for that year in accordance with the provisions of this part [subpart 205]. The determination of when an award is expended should be based on when the activity related to the award occurs."

Recipients shall also submit single audits to the Federal Clearinghouse as designated by OMB. Information can be found on the following web-site:

<http://harvester.census.gov/sac/>

8. *Project/Award Close-Out*

The project close-out report shall be completed within 90 days of the end of the Award performance period or within 90 days of the completion of the project, whichever is earlier. Recipients must also draw down any remaining funds for expenditures incurred under this award during this 90-day period.

The project close-out report shall be submitted on-line through the Denali Commission's on-line Project Database System, available at www.denali.gov. The project close out will require the recipient to submit the following information:

- a. Final data for each item listed in paragraph 7(a) "Progress Reports"
- b. Final project expenditures itemized by the following categories: planning & design; materials & equipment; freight; labor; project administration/overhead and other expenses.
- c. Acknowledgement of support: For all non-construction projects, the Award recipient shall include an acknowledgement of the Government's support for the project(s) developed under this Award. The format for acknowledgement of the Government's support for non-construction awards will vary with each award and must be agreed upon between the Award recipient and the Denali Commission Project Manager. Denali Commission logo shall be printed on the final report cover. Costs associated with this requirement shall be paid out of the project funding received by the Award recipient from the Denali Commission.

9. *Public Policy Laws and Assurances*

Award Recipients are required to comply with the public policy laws and assurances on SF 424b. This form must also be signed by a certifying official of the organization. Some of the laws are highlighted below for your reference.

To the maximum extent practicable, considering applicable laws, Funding Recipients shall accomplish the project contemplated by the Award using local Alaska firms and labor.

No portion of this award may be used for lobbying or propaganda purposes as prohibited by 18 U.S.C. Section 1913 or Section 607(a) of Public Law 96-74.

Project level environmental reviews in accordance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA) are required for each project undertaken with Denali Commission funds.

10. *Non-Compliance with Award Conditions*

Recipients not in compliance with the terms and conditions of this Financial Assistance Award will be notified by the Denali Commission. The Denali Commission will work with the recipient to identify the steps necessary to bring them back into compliance, and

will establish an appropriate time frame for the corrections to be made. If the corrections have not been made by the deadline, the Denali Commission reserves the right to either suspend or unilaterally terminate the Financial Assistance Award for non-performance.

11. Program Manager, Financial Manager & Other Contact Information

Denali Commission	Alaska Center for Energy and Power
Denali Daniels Program Manager 510 L Street, Suite 410 Anchorage, AK 99501 Phone: 907-271-1189 Fax: 907-271-1415 E-mail: ddaniels@denali.gov	Gwen Holdmann Project Manager 451 Duckering Building Fairbanks, Alaska 99775-5880 Phone: 907-590-4577 Fax: 907-474-6686 Email: gwen.holdmann@uaf.edu
Betty Sorensen Grants Administrator 510 L Street, Suite 410 Anchorage, AK 99501 Phone: 907-271-3415 Fax: 907-271-1415 E-mail: bsorensen@denali.gov	Maggie Griscavage Financial Contact 3295 College Road, 109 ASC Fairbanks, AK 99775-7880 Phone: 907-474-6446 Fax: 907-474-5506 Email: gmgriscavage@alaska.edu

12. Other Project Specific Paragraphs

In addition to reporting quarterly, ACEP shall meet twice annually with the Commission to report lessons learned and project status.